REMARKS

Claims 1-19 are currently pending in the subject application and are presently under consideration. Independent claims 1 and 19 have been amended to further distinguish the claimed subject matter, and claim 2 has been amended to reflect proper antecedent basis. Applicants' representative thanks Examiner Hillery for the courtesies extended during the telephonic interview of Thursday May 24, 2007.

The May 24, 2007 interview included a discussion of the §101, §102, and §103 rejections articulated in the Final Office Action dated April 17, 2007. During the interview, the examiner indicated that the §101 rejection based on lack of a tangible result may not stand in light of new case law. The examiner maintained the rejection, however, because in the examiner's view, the claims do not fulfill the disclosed utility of applicants' invention. With regard to the §102 rejection, Applicants' representative proposed amending the claimed subject matter to recite "…at least one of selectively pulling and pushing a subset of the one or more input XML items, the subset of the one or more input XML items is less than the whole one or more input XML items." The examiner maintained the rejection in light of these amendments, but indicated it could overcome a problem where a subset was construed as including the whole set of input items.

In regard to the §103 rejection, the Omoigui reference and the ADO.NET reference were discussed, but no agreement with respect to the claimed subject matter was reached. Applicants' representative indicated that the ADO.NET reference was not a qualifying reference as no publication date or date of public availability (*e.g.*, date that it was hosted on a publicly accessible Internet site and catalogued by an online search engine) was provided for the reference. No agreement was reached with respect to the ADO.NET reference.

Favorable reconsideration of the subject patent application is respectfully requested in view of the following comments.

I. Rejection of Claims 1-19 Under 35 U.S.C. §101

Claims 1-19 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Withdrawal of this rejection is requested for at least the following reason. Claims 1-19 produce a useful, concrete, and tangible result.

> Because the claimed process applies the Boolean principle [abstract idea] ***to produce a useful, concrete, tangible result*** … on its face the claimed process comfortably falls within the scope of §101. *AT&T Corp. v. Excel Communications, Inc*., 172 F.3d 1352, 1358. (Fed. Cir. 1999) (Emphasis added); *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc*., 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed.Cir.1998). The inquiry into patentability requires an examination of the contested claims to see if the claimed subject matter, as a whole, is a disembodied mathematical concept representing nothing more than a "law of nature" or an "abstract idea," or if the mathematical concept has been ***reduced to some practical application rendering it "useful***." *AT&T* at 1357 *citing In re Alappat*, 33 F.3d 1526, 31 1544, 31 U.S.P.Q.2D (BNA) 1545, 1557 (Fed. Cir. 1994) (emphasis added).

In the subject Office Action it is contended that the claims do not produce a concrete, useful and tangible result. More specifically, the subject Office Action contends that the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. The Office Action seems to equate manipulating data, *e.g.*, done as a result of implementing software code on a suitable processor, with a thought, or a computation in the abstract. The Court of Appeals for the Federal Circuit has clearly stated otherwise, however. Specifically the holding of the Court of Appeals for the Federal Circuit in *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325 (Fed. Cir. 2005):

> Title 35, section 101, explains that an invention includes "any new and useful process, machine, manufacture or composition of matter." ... Without question, ***software code alone qualifies as an invention eligible for patenting under these categories***, at least as processes. *Id.* at 1338 (emphasis added).

Software code alone qualifies as an invention eligible for patenting, and therefore is not to be interpreted as abstract in nature. The Office Action admits that the claimed subject matter provided for transforming a selective subset of data items, specifically a transformer or transformation component *that transforms one or more input XML items in a first format to one or more transformed XML items in one or more second XML formats*. It is submitted that all that is relevant is the fact that software code is received, processed, and its output facilitated for the claimed invention to produce a useful, concrete, and tangible result.

The Office Action also contends that a useful result is not produced because, "the claimed subject matter relates only to transforming data items." (Final Office Action dated April 17, 2007, p. 3, 1st paragraph). Applicants' representative notes that the Office Action fails to acknowledge that more than transformation is claimed in respect of utility. Specifically, *an output manager that facilitates at least one of selectively pulling and pushing a subset of the one or more input XML items* is also provided. The claimed subject matter not only provides for transforming XML items but for selectively facilitating output of a subset of the transformed XML items. In light of *Eolas*, the claimed subject matter is clearly sufficient to meet the requirements for statutory subject matter under 35 U.S.C. §101.

In view of at least the foregoing, it is readily apparent that the subject claim sets forth a useful, concrete and tangible result. Accordingly, withdrawal of this rejection is requested.

II. Rejection of Claims 1, 3, 4, 5 and 19 Under 35 U.S.C. §102(e)

Claims 1, 3, 4, 5 and 19 stand rejected under 35 U.S.C. §102(e) as being anticipated by Kuznetsov (US 6,772,413 B2). This rejection should be withdrawn for at least the following reasons. Kuznetsov does not disclose or suggest each and every limitation set forth in the subject claims.

> A single prior art reference anticipates a patent claim only if it ***expressly or inherently describes each and every limitation set forth in the patent claim***. *Trintec Industries, Inc. v. Top-U.S.A. Corp.,* 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California,* 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The ***identical invention must be shown in as complete detail as is contained in the ... claim***. *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Applicants' claimed invention relates to providing a streaming input and streaming output incremental XML transformer that can be employed in push and/or pull model processing. The XML transformer facilitates a user incrementally building the output from XML data so that only a subset of an XML document needs to be loaded into memory to perform a selective transformation. Independent claims 1 and 19 recite similar limitations, namely: ***a transformer*** *that transforms one or more input XML items in a first format to one or more transformed XML items in one or more second XML formats*; *and an output manager that facilitates at least one of* ***selectively pulling and pushing a subset of the one or more input XML items***. Kuznetsov does not disclose or suggest such novel aspects of applicants' claimed invention.

The Office Action cites column 13, line 66 – column 14 line 1 of Kuznetsov to teach that any number of translators can be implemented simultaneously, such that an entire set (or selected subset) of packets can be translated during runtime. The Office Action contends that this portion of Kuznetsov discloses *an output manager that facilitates at least one of* ***selectively pulling and pushing a subset of the transformed XML items***. However, as discussed below this contention is incorrect.

The cited portions of Kuznetsov simply teach any number of translators that can be implemented simultaneously to transform an entire set, or presumably a selected subset, of packets; no explanation is given as to how the selected subset can be generated, it is merely mentioned in passing. At the very least, Kuznetsov does not enable the subject matter recited by claim 1. In addition, no explanation is given as to how "any number of translators" can facilitate at least one of selectively pulling and pushing a subset of the transformed XML items, provided by ***a transformer***. For example, presumably one or more of the "any number of translators" might be turned off to facilitate translating a selected subset of packets (such a result is speculation, however, it is not disclosed by Kuznetsov), but even that does not read on "***a translator*** … and an output manager that facilitates at least one of selectively pulling and pushing a subset of the transformed XML items" as turning off the translator of claim 1 would result in no items being transformed. Consequently, such a result would render the claimed subject matter inoperative. Therefore, "any number of … translators can be implemented simultaneously, such that an entire set (or selected subset) of packets can be translated" (Kuznetsov, column 13 line 66 through column 14 line 1) does not read on the subject matter of claim 1.

In view of the foregoing, it is believed that Kuznetsov does not teach or suggest each and every aspect of independent claims 1 and 19 (and claims 3, 4, and 5 that depend there from). Therefore, it is respectfully requested that this rejection be withdrawn.

III. Rejection of Claim 2 Under 35 U.S.C. §103(a)

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kuznetsov (US 6,772,413 B2) as applied to claim 1 above and further in view of Omoigui (US 2003/0126136 A1). Withdrawal of this rejection is requested for at least the following reason. Kuznetsov and Omoigui, either alone or in combination, do not teach or suggest each and every aspect set forth in the subject claims.

> To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. ***Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitation***s. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *See In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added).

Claim 2 recites: the system of claim 1, the transformer comprises an action frame stack that holds one or more actions, an event state machine that tracks state associated with transforming the one or more XML items and an event processor that receives events generated in processing the one or more actions stored in the action frame stack. The Office Action contends that Omoigui teaches "the system provides support for authentication, authorization, auditing, data privacy, data integrity, availability, and non-repudiation by employing standards such as WS-Security. WS-Security provides a platform for security with XML Web Service applications using standards in the XML Web Serve protocol stack. This includes method calls from clients, support for digital signatures, authenticating the calling user before granting access to an Agency's Semantic Network and XML Web Service methods, etc." (Omoigui, paragraph 0367).

The Office Action further contends that the cited portion of Omoigui reads on the limitation recited in claim 2. This is incorrect. An "XML Web Service protocol stack" is not equivalent to an action frame stack that holds one or more actions. Further, the XML Web

Service protocol stack does not include an event state machine that tracks state associated with transforming the one or more XML items and does not include an event processor that receives events generated in processing the one or more actions stored in the action frame stack. Neither does Omoigui state that these items are included within the XML Web Service protocol stack. Such contention appears for the first time in the Office Action, unsupported by the cited references. Omoigui appears to recite an XML Web Service security provision that can encrypt method calls, support digital signatures, authenticate calls, and the like. This, however, does not remotely meet the limitations of claim 2.

In view of the foregoing, it is believed that neither Kuznetsov nor Omoigui, alone or in combination, teaches or suggests each and every aspect of claim 2. Therefore, it is respectfully requested that this rejection be withdrawn.

IV. Rejection of Claims 6-18 Under 35 U.S.C. §103(a)

Claims 6-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kuznetsov (US 6,772,413 B2) as applied to claim 1 above and further in view of ADO.NET (English Translation). Withdrawal of this rejection is requested for at least the following reason. ADO.NET and Kuznetsov, either alone or in combination, do not teach or suggest each and every aspect set forth in the subject claims.

> To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. ***Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitation***s. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *See In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added).

The Office Action fails to establish a *prima facie* case of obviousness because neither Kuznetsov nor ADO.NET teach or suggest all the elements of claim 1, from which claims 6-18 depend, or the additional elements recited by claims 6, 8, 9, 10, 12, and 15-18. As stated above, Kuznetsov does not recite the elements of independent claim 1, specifically, ***a transformer*** *that transforms one or more input XML items in a first format to one or more transformed XML items in one or more second XML formats; and an output manager that facilitates at least one of* ***selectively pulling and pushing a subset of the transformed XML items***. The Office Action recites column 13 lines 66 through column 14 line 1 of Kuznetsov to anticipate "an output manager that facilitates at least one of selectively pulling and pushing a subset of the transformed XML items".

The cited portions of Kuznetsov simply teach any number of translators that can be implemented simultaneously to transform an entire set of packets; no explanation is given as to how a selected subset of packets can be translated. At the very least, Kuznetsov does not enable the subject matter recited by claim 1; no explanation is given as to how "any number of translators" can facilitate at least one of selectively pulling and pushing a subset of the transformed XML items, provided by ***a transformer***. For example, presumably one or more of the "any number of translators" might be turned off to facilitate translating a selected subset of packets (such a result is speculation, however, it is not disclosed by Kuznetsov), but even that does not read on "***a translator*** … and an output manager that facilitates at least one of selectively pulling and pushing a subset of the transformed XML items" as turning off the translator of claim 1 would result in no items being transformed. Consequently, such a result would render the claimed subject matter inoperative. Therefore, "any number of … translators can be implemented simultaneously, such that an entire set (or selected subset) of packets can be translated" (Kuznetsov, column 13 line 66 through column 14 line 1) does not read on the subject matter of claim 1. In addition, ADO.NET is silent with respect to this element of claim 6-18, and cannot be used to cure the deficiencies of Kuznetsov.

Furthermore, with regard to claim 6, the Office Action cites ADO.NET to teach "an XpatchNavigator is created to abstract data from the xml data set via an XpathNodeIterator by employing a loop", and contends that this portion of ADO.NET reads on: *an input abstractor that exposes data stored in the one or more data stores in a common representation*. This would require that all abstraction of data employing a loop exposes the abstracted data in a common representation. Nothing in the reference supports this result, and the Office Action does not suggest it either. Therefore, the cited portion of ADO.NET is simply insufficient to meet the subject matter recited in claim 6.

With regard to claim 8, the Office Action recites page 19 of ADO.NET to teach an XpathNavigator is created to abstract data from the xml data set. The Office Action claims that this subject matter teaches "the input abstractor exposes the data stored in the one or more data stores as a data model and infoset. This statement is logically incorrect, however, as it would require all data abstracted from an xml data set to be exposed in one or more data stores as a data model and infoset. This is not the case. Consequently the cited portion of ADO.NET is insufficient to meet the claimed subject matter recited by claim 8.

With regard to claim 9, the Office Action recites page 19 of ADO.NET to teach an XpathNavigator is created to abstract data from the xml data set and sends the data to an XSLT. The Office Action claims that this subject matter teaches "the input abstractor provides a cursor model over data stored in a data store to facilitate presenting a stream of nodes to the transformer", as recited by claim 9. It is not apparent how abstracting data and sending said data to an XSLT meets "providing a cursor model over data stored in a data store to facilitate presenting a stream of nodes to a transformer". This would require all abstraction of data to necessarily include "providing a cursor model over data stored in a data store to facilitate presenting a stream of nodes". The ADO.NET reference certainly does not disclose this proposition, and no other reference cited in the Office Action suggests this result either. Consequently, ADO.NET is insufficient to meet the subject matter of claim 9.

With regard to claim 10, the Office Action recites page 19 of ADO.NET to teach an XpathNavigator is created to abstract data from the xml data set. The Office Action contends that this cited portion of ADO.NET discloses "the input abstractor provides a virtual node that can be employed to traverse the stream of nodes" recited by claim 10. However, this result also requires all data abstracted from an xml data set to "provide a virtual node that can be employed to traverse the stream of nodes." ADO.NET does not disclose this proposition, and no other reference cited in the Office Action suggests this result either. Consequently, the cited portion of ADO.NET is insufficient to meet the subject matter of claim 9.

With regard to claim 12, the Office Action recites page 19 of ADO.NET to teach "SQL is used to query xml items and store them to an XML data set and that each node in the xml dataset is visited by employing an XpathNodeIterator. The Office Action contends that this cited portion of ADO.NET discloses "a node selection abstractor that dynamically constructs a subset of input XML items from a set of input XML items, the subset of input XML items are response to a query". An SQL query does not necessarily dynamically construct a subset of input XML items from a set of input XML items. Such a result would be necessary for the cited portion of ADO.NET to read on the subject matter of claim 12. In addition, nothing in ADO.NET or in Kuznetsov provides motivation to combine an SQL query with constructing a subset of input XML items from a set of input XML items in conjunction with a transformer that transforms one or more input XML items in a first format to one or more transformed XML items in one or more second formats, as recited by claim 12. The Office Action contends that doing so would have been obvious because it provides a benefit of "explicit implementation of XPath via source code." However, constructing a benefit in hindsight does not meet the requirement of "some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings". No reference cited by the Office Action acknowledges such a benefit, nor does the Office Action provide any credence to the fact that such a benefit would have been considered by one of skill in the art prior to the filing date of the subject application. Consequently, the cited references neither teach nor suggest all subject matter recited by claim 12, nor does there exist a sufficient motivation to combine such references as required by MPEP §706.02.

With regard to claim 15, the Office Action recites pages 18-19 of ADO.NET to teach "that SQL is used to query xml items and store them to an XML data set". The Office Action further contends that this subject matter discloses "an optimized data store that stores one or more XML items in a manner that facilitates minimizing processing associated with constructing the subset of input XML items via a query." However, this contention requires that all SQL queries of xml items stored to an XML data set facilitates minimizing processing associated with constructing the subset of input XML items via a query. Nothing in ADO.NET proposes this requirement, and the Office Action gives no addition grounds to do so either. In addition, as stated above with regard to claim 12, the Office Action provides insufficient motivation to combine Kuznetsov and ADO.NET, as nothing in either reference and nothing else provided in the Office Action suggests that one of skill in the art would be motivated to combine the references by "the benefit of explicit implementation of XPath via source code". This conclusion seems to be manufactured wholly at first instance by the Office Action; the cited art does not support it. Consequently, the cited references neither teach nor suggest all subject matter recited by claim 12, nor does there exist a sufficient motivation to combine such references as required by MPEP §706.02.

With regard to claims 16, 17, and 18 the Office Action recites pages 18-19 of ADO.NET to teach that and "Xpath document is created and used to store and manipulate the xml data set". The Office Action contends that this cited portion discloses "the optimized data store stores data in a data representation format that facilitates optimizing an Xpath query". Similar to analogous conclusions cited with respect to other claims, stated above, this contention is logically flawed in that it requires that every creation of an Xpath document that stores and manipulates an xml data set to necessarily include a data representation format that facilitates optimizing an Xpath query. This result would logically negate any optimization of the Xpath query, because of all queries involved the same data representation that optimizes the query, none would be optimal over another. Consequently, ADO.NET is insufficient to teach the subject matter recited by claim 16.

In view of the foregoing, it is believe that neither Kuznetsov nor ADO.NET, alone or in combination, teaches or suggests each and every aspect of independent claims 1 and 19 (and claims 2-18 that depend there from). Therefore, it is respectfully requested that this rejection be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited. In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP296US]. Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,
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